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EXAMINER	
JUNTIMA, NITTAYA	
ART UNIT	**PAPER NUMBER**
2663	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/780,619	LUCIONI, GONZALO
	Examiner	Art Unit
	Nittaya Juntima	2663

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) *3,6 and 13* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,7-8,11-12,14-15* is/are rejected.

7)☒ Claim(s) *9 and 10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 November 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the amendment filed on 11/09/2004.

2. The objections to the drawings and the rejection under 35 U.S.C. 112, second paragraph are withdrawn in view of applicant's amendment.

3. Claims 3, 6, and 13 have been cancelled as per applicant's amendment(s).

4. Claims 9 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The indicated allowability of claims 6 and 7 are withdrawn in view of the newly discovered reference(s) to Anandakumar et al. (USPN 6,804,244 B1) and Fuji (USPN 6,519,567 B1). Claims 1-2, 4-5, 7-8, 11 and 12 are presently rejected under 35 U.S.C. 103(a). Rejections based on the newly cited reference(s) follow.

Claim Objections

6. Claims 1, 7, 9, 11, and 12 are objected to because of the following informalities:

- in claim 1, ll 9, "of" should be deleted;
- in claim 7, ll 1, "claim 6" should be changed to "claim 1;"
- in claim 9, ll 4, "the audio data rate" should be changed to "an audio data rate;"
- in claim 11, ll 10, "the receiving" should be changed to "a receiving;"
  11, "the transmitting" should be changed to "a transmitting."
- in claim 12, ll 11, "the receiving" should be changed to "a receiving;"

12, "the transmitting" should be changed to "a transmitting."

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. **Claims 1, 4-5, 7-8,** and **11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Flanagan (USPN 4,100,377) in view of Anandakumar et al. ("Anandakumar ") (USPN 6,804,244 B1).

Regarding claim 1, as shown in Fig. 2, Flanagan teaches a method comprising:

Asynchronously transmitting ***audio data*** (speech, col. 3, ll 26-30) including ***samples*** (samples must be included in voice signal, col. 3, ll 52-54) of ***an audio signal*** (voice signal, col. 3, ll 52-54) in ***data packets*** (packets, col. 6, ll 24-31) from ***a transmitting communication system*** (transmitter 10 in Fig. 1) via ***a packet-oriented communication network*** (packet transmission system, col. 1, ll 53-63) to ***a receiving communication system*** (receiver 11 in Fig. 1).

Detecting ***an information item*** (load factor on lead 55) relating to the transmission of data packets.

Converting ***the audio data*** (speech) such that their sampling rate is altered by ***digital filtering*** (when digital voice signals are input, their sampling rate altered by the sample gate 41

must be done by digital filtering, col. 7, ll 57-61 and col. 3, ll 50-55, 59-62, 67-col. 4, ll 1-5), the sampling rate being altered based on the detected information item, in such a manner that due to the altered sampling rate, a quality of service of the audio transmission is optimized with regard to a current transmission situation indicated by the detected information item (quality of encoded speech is optimized based on the load factor on lead 55 to relieve the load on the transmission facilities, col. 5, ll 18-24 and col. 4, ll 43-46).

Flanagan fails to teach that the transmission of the data packets is monitored by the receiving communication system and an information item relating to this transmission is transmitted to the transmitting communication system and the audio data are converted by the transmitting communication system based on the information item transmitted.

However, in an analogous art, Anandakumar teaches, as shown in Fig. 3, that the transmission of the data packets is monitored by ***a receiving communication system*** (a receive section 361') and ***an information item*** (RTCP packet loss information due to network loading conditions) relating to this transmission is transmitted to ***a transmitting communication system*** (a transmit section 311) and audio data are encoded by the transmitting communication system based on the information item transmitted (col. 23, ll 4-12, 18-31, 53-col. 24, ll 2, see also col. 27, ll 22-37).

Given the teaching of Anandakumar, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Flanagan to include that the transmission of the data packets is monitored by the receiving communication system and an information item relating to this transmission is transmitted to the transmitting communication system and the audio data are converted by the transmitting communication system based on the

information item transmitted. The suggestion/motivation to do so would have been to enable the transmitter to provide control over QoS under different network loading conditions as taught by Anandakumar (col. 23, ll 65-col. 24, ll 2).

Regarding **claim 4**, Flanagan teaches that ***the audio data*** (speech) to be transmitted are converted by ***the transmitting communication system*** (transmitter 10 in Fig. 1) and ***a conversion message*** (a coded block with a header portion including a code stamp indicating the adjusted sampling rate, col. 6, ll 24-31, see also col. 5, ll 18-24) about the conversion is transmitted from the transmitting communication system to ***the receiving communication system*** (receiver 11 in Fig. 1).

Regarding **claim 5**, as shown in Fig. 3, Flanagan teaches that the transmitted audio data are reconverted by the receiving communication system (receiver 11 in Fig. 1), the change in the audio data taking place in the reconversion being determined by means of the conversion message transmitted (col. 6, ll 7-17, see also ll 24-31).

Regarding **claim 7**, Flanagan fails to teach that the information item transmitted specifies ***a data packet loss rate*** and, if the data packet loss rate rises, the audio data are converted by the transmitting communication system in such a manner that the audio data rate is reduced.

However, Anandakumar teaches that ***the information item*** (RTCP packet loss information due to network loading conditions) transmitted specifies ***a data packet loss rate*** (packet loss rate is specified in a packet loss rate field of a TRCP packet, col. 22, ll 37-41) and, if the data packet loss rate rises (packet loss rate is higher than a threshold), ***the audio data*** (speech) are converted by ***the transmitting communication system*** (a transmit section 311, Fig.

3) in such a manner that the audio data rate is reduced (source rate is reduced), see col. 27, ll 48-61.

Regarding **claim 8**, as shown in Fig. 3, Flanagan teaches that ***a detected incorrect adaptation of the data rate of the received audio data*** (delay in transmission time for each speech packet must be detected in order to provide reassembled voice signals with reasonable speech quality using time stamp at the receiving end, col. 7, ll 40-46) is at least partially compensated by the receiving communication system (receiver 11 in Fig. 1) by means of a conversion of the received audio data (time stamp used in compensating the delay is used in converting the received speech packet containing audio data into voice signal, col. 7, ll 40-56).

Regarding **claim 11**, as shown in Fig. 2, Flanagan teaches ***a communication system*** (TASI system in Fig. 1) for transmitting ***audio data*** (speech, col. 3, ll 26-30) including ***samples*** (samples must be included in voice signal, col. 3, ll 52-54) of ***an audio signal*** (voice signal) via ***a packet-oriented communication network*** (packet transmission system, col. 1, ll 53-63), comprising:

a monitoring means unit (code stamp register 52, col. 4, ll 43-46) for detecting ***an information item*** (load factor, col. 4, ll 43,-46) relating to the transmission of ***data packets*** (packets, col. 6, ll 24-31) including audio data;

a digital sampling rate conversion device (sample gate 41, col. 3, ll 59-col.4, ll 1-5, see also col. 5, ll 18-24) for converting the audio data by altering their sampling rate; and

a control means unit (sample rate generator 43, col. 5, ll 18-24) for controlling the sampling rate alteration based on the information item detected.

Flanagan fails to teach that the transmission of the data packets is monitored by the receiving communication system and an information item relating to this transmission is transmitted to the transmitting communication system and the audio data are converted by the transmitting communication system based on the information item transmitted.

However, in an analogous art, Anandakumar teaches, as shown in Fig. 3, that the transmission of the data packets is monitored by ***a receiving communication system*** (a receive section 361') and ***an information item*** (RTCP packet loss information due to network loading conditions) relating to this transmission is transmitted to ***a transmitting communication system*** (a transmit section 311) and audio data are encoded by the transmitting communication system based on the information item transmitted (col. 23, ll 4-12, 18-31, 53-col. 24, ll 2, see also col. 27, ll 22-37).

Given the teaching of Anandakumar, it would have been obvious to one skilled in the art at the time the invention was made to modify the teaching of Flanagan to include that the transmission of the data packets is monitored by the receiving communication system and an information item relating to this transmission is transmitted to the transmitting communication system and the audio data are converted by the transmitting communication system based on the information item transmitted. The suggestion/motivation to do so would have been to enable the transmitter to provide control over QoS under different network loading conditions as taught by Anandakumar (col. 23, ll 65-col. 24, ll 2).

9. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Flanagan (USPN 4,100,377) in view of Anandakumar et al. ("Anandakumar ") (USPN 6,804,244 B1), and further in view of Duan (USPN 6,000,834).

Regarding **claim 14**, the combined teaching of Flanagan and Anandakumar fails to teach that the digital sampling rate conversion device exhibits a digital filter chip for converting the audio data.

As shown in Fig. 2, Duan teaches ***a digital filter chip*** (an audio sampling rate conversion filter 12, col. 3, ll 22-39) for converting audio data.

Given the teaching of Duan, it would have been obvious to one skilled in the art at the time the invention was made to include a digital filter chip in the combined teaching of Flanagan and Anandakumar. The suggestion/motivation to do so would have been to provide audio sampling rate conversion from one sample rate to another sample rate (Abstract and col. 3, ll 28-39).

10. **Claims 2, 12,** and **15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuji (USPN 6,519,567 B1) in view of Anandakumar et al. ("Anandakumar ") (USPN 6,804,244 B1).

Regarding **claims 2** and **12,** Fuji teaches a method comprising:

Digitally converting audio data (voice speech) by ***a digital timescale conversion device*** (a time-scale modification apparatus, Fig. 1) such that the duration of an audio signal representd by the audio data is modified while retaining a pitch of the audio signal (col. 2, ll 63-66 and col. 3, ll 13-17 and 25-31, see also col. 1, ll 19-28 and 40-42).

However, Fuji fails to teach steps of asynchronously the transmitting audio data, detecting an information item, modifying the duration based on the detected information item, and monitoring the transmission of the data packets, and transmitting an information item to the transmitting communication system, and converting the audio data based on the information transmitted as recited in the claim.

In an analogous art, Anandakumar teaches asynchronously transmitting ***audio data*** (voice, col. 35, ll 11-13) including ***samples*** (voice samples, col. 35, ll 11-13) of ***an audio signal*** (inherent voice signal, col. 35, ll 11-13) in ***data packets*** (voice packets, col. 35, ll 11-22) from ***a transmitting communication system*** (a transmit unit 311, Fig. 3, col. 23, ll 4-21) via ***a packet-oriented communication network*** (packet network 351, Fig. 3) to ***a receiving communication system*** (a receive unit 361' in Fig. 3, col. 23, ll 4-21).

Detecting ***an information item*** (RTCP packet loss information due to network loading conditions) relating to the transmission of data packets (RTCP packet loss information is detected at a RTCP depacketizer (***a monitoring unit***) of the source 311, col. 23, ll 27-31).

The encoding being modified based on the detected information item (RTCP packet loss information), in such a manner that due to the modified encoding, a quality of service of the audio transmission is optimized with regard to a current transmission situation (network loading condition) indicated by the detected information item (a control block 331 (***a control unit***) controls the encoding rate adaptation based on the received RTCP packet loss information such that the speech encoder 321 responds in its operations to control over QoS under different network loading conditions, col. 23, ll 9-12 and 65-col. 24, ll 2, see also col. 30, ll 41-53).

The transmission of the data packets is monitored by ***a receiving communication system*** (a receive section 361', Fig. 3) and ***an information item*** (RTCP packet loss information due to network loading conditions) relating to this transmission is transmitted to ***a transmitting communication system*** (a transmit section 311) and audio data are encoded by the transmitting communication system based on the information item transmitted (col. 23, ll 4-12, 18-31, 53-col. 24, ll 2, see also col. 27, ll 22-37).

Because Fuji further teaches that the time-scale modification is used to scale adjustment, e.g. scale adjusting an overall recording time to a prescribed time (col. 1, ll 19-27 and 36-42, and col. 6, ll 39-45) and given the teaching of Anandakumar, it would have been obvious to one skilled in the art to modify the teaching of Fuji to include the steps of asynchronously the transmitting audio data, detecting an information item, modifying the duration based on the detected information item, and monitoring the transmission of the data packets, and transmitting an information item to the transmitting communication system, and converting the audio data based on the information transmitted as recited in the claim. The suggestion/motivation to do so would have been to provide a feedback to enable the transmitter to control over QoS under different network loading conditions (Anandakumar, col. 23, ll 65-col. 24, ll 2), e.g. an overall time of the audio signals would be shortened to accommodate an overloading network condition.

Regarding **claim 15**, Fuji does not teach that the digital timescale conversion device (a time-scale modification apparatus, Fig. 1) exhibits a digital signal processor for converting the audio data.

However, an official notice is taken that a digital signal processor, which is designed to solve specific processing problem, processes very efficiently and in real-time a digital data

stream that is sampled from analog signals including audio. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to include the digital timescale conversion device that exhibits a digital signal processor for converting the audio data as recited in the claim. The suggestion/motivation to do so would have been to provide efficient and in real-time digital timescale conversion to the audio data using a digital signal processor.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nittaya Juntima
May 3, 2005
NJ

RICKY NGO
PRIMARY EXAMINER
5/5/05